

Abstract

A system according to the principles of the invention includes an adapter that aggregates network traffic from a plurality of Portable Computing Devices and combines the aggregated data into a wireless network data channel. The adapter may include a wireless network interface for establishing and maintaining a wireless network channel with a wireless base station, and may combine the data in a manner that preserves addressing information (such as IP source and destination addresses) for each individual PCD. A wireless Internet service provider may separate the data according to a predetermined protocol, and create individual data packets, such as IP packets, for each PCD using the network data channel. A complementary operation may be performed for data received at the wireless base station and addressed to PCD's connected to the adapter. In this manner, a number of PCD's may be in bi-directional communication with a network using a single data channel.